REMARKS

Specification

The title has been amended in accordance with the Examiner's suggestion.

Page 60 has been amended to correctly identify the Table thereon as Table 5, with corrections made as suggested by the Examiner at lines 6, 9 and 16.

Claim Status

Please cancel claims 1-22

Claim Rejections

Claims 23-29 are pending. Claims 1-22 are cancelled as a non-elected invention under a restriction requirement. New claims 30 through 32 do not add new matter, and relate to the embodiments specifically disclosed in Example 13, wherein there is ipsis verbis support for the claimed compounds. New claim 32 relates to the compound which is the fifth compound listing in Example 13, and the fifth compound listed in new claim 30.

Claim 27 is no longer multiply dependent, so that the objection to the form of claim 28 under 37 CFR 1.75(c) is overcome. In response to the rejection of claim 28 under 35 U.S.C. § 112, second paragraph, it is respectfully submitted that the amended SEQ ID Nos recited in claim 28 constitute a proper Markush group, in accordance with MPEP 2173.05(h).

Claim 23 has been amended to spell out the meaning of the acronyms "CXCR4" and "SDF-1", as suggested by the Examiner in raising an objection to claims 23-29 under 35 U.S.C. § 112, second paragraph.

35 U.S.C. § 112

Claims 23-28 are rejected under 35 U.S.C. § 112, first paragraph, based on the assertion that the specification does not enable practice of the invention commensurate with the scope of the claims, and claims 23-27 are rejected as failing to comply with the written description

requirement.

In paragraph 6 of the Action, the Examiner acknowledges that the specification is enabling for a CXCR4 agonist peptide comprising (a) an N-terminal sequence comprising amino acids 1-14 of SDF-1; (b) a C-terminal sequence comprising amino acids 55-67 of SDF-1 and wherein the C-terminal is an acid of an amide; (c) a peptide spacer sequence lining the N-terminal sequence to the C-terminal sequence, wherein the peptide spacer sequence comprises 4 glycine residues; and, optionally (d) an internal cyclic lactam bond between amino acid residues 20 and 24 in the C-terminal sequences.

To expedite prosecution, while maintaining that the present specification fully supports the original claims, the claims have been amended so that they are directed to the embodiments specifically disclosed in Example 13. Claims 24 through 26 have been cancelled, and the limitations of claim 24 and 26 added to claim 23. Claim 23 has been further amended, showing the specific alternative monomers at seven positions within the N-terminal and C-terminal regions as listed in the sequences set out in Example 13. The substitutions in the N-terminal region as follows:

[P or D] at position 2;

[L or D] at position 5;

[C or A or F or H or W or Y] at position 9;

[C or F or W or Y or H or A] at position 11.

In amended claim 23, the linker is specified G_{1-4} or $(CH_2)_{1-4}$. Support for such linkers is for example found in paragraph 148, as follows: "In alternative embodiments of the peptides of the invention, underlined spacer monomers (such as the illustrated glycine G's) may for be used in variable numbers, such as 2, 3 or 4 glycines."

In the C-terminal portion, as presently claimed, there are alternative lactam cyclizations as set out in the compounds of Example 13, recited in amended claim 23 using the formula L[K

or O]*WIQ[E or D]*YLE[K or O]*ALN . Additional support for the presently claimed C-terminal sequences is for example found at page 46, which includes a discussion of lactam ring formation in the C-terminal in which K may be substituted by O; or E by D.

Accordingly, the compounds of amended claim 23 are of the following formula:

K[P or D]VS[L or D]SYR[C or A or F or H or W or Y]P[C or F or W or Y or H or A]RFF[Gn or $(CH_2)_n$ with n = 1-4]L[K or O]*WIQ[E or D]*YLE[K or O]*ALN

The applicants respectfully request that the Examiner not renew claim rejections under 35 U.S.C. § 112.

Rejections Under 35 U.S.C. § 102

Claims 23 and 25 are rejected under 35 U.S.C. §102(a) based on the assertion that they are anticipated by Luo et al. (Biochem Biophys Res Comm 264: 42-47, 1999). The Examiner notes, among other things, that Luo et al. disclose a peptide having an N-terminal sequence of amino acids 5-14 of SDF-1. The specific sequence of the Luo et al. peptide is set out in the legend to Figure 1 therein. It is respectfully submitted that the presently claimed compounds do not include the Luo et al. sequence, which is set out therein as follows: LSYRCPCRFF-GGGG-LKWIQEYLEKALN. Luo et al. also does not disclose a C-terminal sequence having an internal cyclic amide bridge, as is presently claimed.

Conclusion

The applicants submit that the claims are in condition for allowance and respectfully request that a timely Notice of Allowance be issued in this case.

Respectfully submitted,

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